DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES
CHECK LIST - RECORDS RECEIVED AND WELL STATUS

COMPANY ERG Operating Company LLC WELL NO "Los Alamos" 322-DS
API NO. 083-22762 SEC. 31, T. 9N, R. 32W, S.B. B.&M.
COUNTY Santa Barbara FIELD Cat Canyon

RECORDS RECEIVED **DATE**

Well Summary (Form OG100) 08-30-12
History (form OG103) 08-30-12
Directional Survey 08-30-12
Core Record and/or SWS **(s drive)** 08-30-12
Other:
Electric logs:
Platform Express/Array Induction/SP/GR/MCFL
Density/Neutron/Dielectric Scanner 06-28-12
Chronological Sample Taker/Gamma Ray Tie
In 06-28-12
Gamma Ray Collar/Cement Bond With Cast
(GR-DBL-Cast) 06-28-12
CBL **(s drive)** 08-30-12
Core sample 8-30-12 S-Drive
SideCore Analysis 10-3-12 S-Drive

STATUS

o NEW OE
(Date)

Engineer's Check List
✓ Summary, History, & Core Record
✓ Directional Survey
✓ Logs
✓ Operator's Name
✓ Signature
✓ Well Designation
✓ Location OK
✓ GPS Location Received
✓ Entered in Computer
Notice
– "T" Reports
✓ Casing Record
– Plugs (Sfc. Plg Date)
– Final Sfc. Insp Date
Production/~~Injection~~
– E Well on Prod., enter EDP
✓ Computer
✓ Drlg Table-TD
(F: Annual Rept/Yr/Prelim Drlg Stat)
– Redrill & Deepen Depths
(F: Annual Rept/Yr/Prelim Drlg Stat)
– Idle Well Status Change
(F: Idle/Idle Wells 2000/Idle Wells Master
– WSS Code or Status Changes

Clerical Check List

Form OGD121
Location change (OG165)
Elevation change (GD165)
Final Letter (OG159)
Release of Bond (OGD150)
Abd in WSS
Notice of Records Due (OGD170)
Request:

✓ Scan Records 11-27-12

Map Work:
✓ Follow Up: 6 Mo PROD
✓ Hold for: 4/2013

Records Approved JH 9/24/2012

OGD2

26

RECEIVED
AUG 30 2012
DIVISION OF OIL, GAS AND GEOTHERMAL RESOURCES

NATURAL RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

WELL SUMMARY REPORT

API No. 04-083-22762-0000

Operator	Well				
ERG OPERATING COMPANY, LLC	**Los Alamos 322-DS**				
Field (and Area, if applicable) **CAT CANYON**	County **SANTA BARBARA**	Sec. **31**	T. **9N**	R. **32W**	B.&M. **SB**

Location of well (Give surface location from property or section corner, street center line)
4246' S & 959' E of NW/4 of Section 31-T9N-R32W

Elevation of ground above sea level:
GL: 1090'

Lat./Long. in decimal degrees, to six decimal places, NAD 83 format: Lat: **34.809510** Long: **-120.292220**

Was the well directionally drilled? ☒ Yes ☒ No If yes, show coordinates (from surface location) and true vertical depth at total depth.
BH Offset: X=-287.09 Y=-228.58 BH @ MD=3220.00 TVD=3197.56 Dist Btwn Surf/BH Loc = 367.0, LAT: 34.8088815, LONG: -120.2931759

Commenced drilling (date)	Total depth (1st hole)	(2nd)	(3rd)
6-9-12	**3220'**		
Completed drilling (date) **6-15-12**			

Depth measurements taken from top of:
☐ Derrick Floor ☐ Rotary Table ☒ Kelly Bushing
Which is **12'** feet above ground.

Commenced production/injection (date) **6-28-12**

Present effective depth **3159'**

Production mode: ☐ Flowing ☒ Pumping ☐ Gas lift

Junk? Describe:

Name of production/injection zone(s)
Sisquoc Zones

GEOLOGICAL MARKERS	DEPTH
T. Sisquoc Fm.	**1358'**
T. First Sisquoc Sand	~~**2685'**~~ 1943
T. Siquoc-S9 Sand Mkr.	**2990'**

Formation and age at total depth
Sisquoc, Pliocene Age

Base of fresh water
768 See LA 93

	Clean Oil (bbl per day)	API Gravity (clean oil)	Percent Water (including emulsion)	Gas (Mcf per day)	Tubing Pressure	Casing Pressure
Initial Production	27	14.7	72%			
Production After 30 days	37	14.7	22%			

CASING AND CEMENTING RECORD (Present Hole)

Size of Casing (Inches API)	Top of Casing	Depth of Shoe	Weight of Casing	Grade and Type of Casing	New (N) or Used (U)	Size of Hole Drilled	Number of Sacks or Cubic Feet of Cement	Depth of Cementing (if through perforations)	Top(s) of Cement in Annulus
16"C.	0'	64'							
7"	0'	3200'	23#	K-55, LT&C,8rd	N	8-3/4"	655cf Type III+SF+ 168cf Class 'G' T.S.	2564 1965	
							110cf,fr 54'to Surf. as Top Job.		

PERFORATED CASING (Size, top, bottom, perforated intervals, size and spacing of perforations, and method.)
Shot 6 SPF 0.48" hole size, Shot 2987' to 3005',2744' to 2760', and 2685' to 2701'
& shot;(4) 1/2" Holes @2564' and @1925' SQZ'D Complete.

Logs/surveys run? ☒ Yes ☐ No If yes, list type(s) and depth(s).
GR / CBL / CAST,
Chronological Sample Taker, w/ GR Tie-In
Array Induction: SP / GR/MCFL / DENSITY / NEUTRON / DI-ELECTRIC SCANNER

In compliance with Sec. 3215, Division 3, of the *Public Resources Code*, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Name of person filing report	Telephone Number	Signature	Date
Ben Oakley, AGENT	**805-361-7112**		**8-8-12**
Address **6085 Cat Canyon Road,**		City/State **Santa Maria, CA**	Zip Code **93454**
Individual to contact for technical questions: **Steve Horner**	Telephone Number **805-722-2422**	E-Mail Address: **SHorner@ERGresources.com**	

OG100 (3/09)

SUBMIT IN DUPLICATE

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ERG

SCIENTIFIC DRILLING
FINAL REPORT

Scientific Drilling

Company:	ERG	**Date:** 6/14/2012	**Time:** 14:56:07	**Page:**	1
Field:	CAT CANYON	**Co-ordinate(NE) Reference:**	Well: 322-DS, Grid North		
Site:	SECTION 31	**Vertical (TVD) Reference:**	322-DS 1102.1		
Well:	322-DS	**Section (VS) Reference:**	Well (0.00N,0.00E,230.48Azi)		
Wellpath:	322-DS SUR	**Survey Calculation Method:**	Minimum Curvature	**Db:**	Sybase

Survey:	Survey #1	**Start Date:**	6/8/2012
Company:	SCIENTIFIC DRILLING	**Engineer:**	TIM PED
Tool:	MWD;MWD	**Tied-to:**	From Surface

Field:	CAT CANYON SANTA BARBARA COUNTY CALIFORNIA, USA		
Map System:	US State Plane Coordinate System 1983	**Map Zone:**	California, Zone V
Geo Datum:	GRS 1980	**Coordinate System:**	Well Centre
Sys Datum:	Mean Sea Level	**Geomagnetic Model:**	IGRF2010

Site:	SECTION 31 SEC. 31, T9N, R32W, SB B&M SANTA BARBARA COUNTY				
Site Position:		**Northing:** 2124000.00 ft	**Latitude:**	34 48 25.866	N
From:	Map	**Easting:** 5873000.00 ft	**Longitude:**	120 17 39.933	W
Position Uncertainty:	0.00 ft		**North Reference:**	Grid	
Ground Level:	0.00 ft		**Grid Convergence:**	-1.31 deg	

Well:	322-DS SUR. N 2124826.64, E 5873669.59 DPSI				**Slot Name:**		
Well Position:	+N/-S 826.64 ft	**Northing:**	2124826.64 ft	**Latitude:**	34 48	34.192	N
	+E/-W 669.59 ft	**Easting :**	5873669.59 ft	**Longitude:**	120 17	32.131	W
Position Uncertainty:	0.00 ft						

Wellpath:	322-DS SUR			**Drilled From:**	322-DS
				Tie-on Depth:	0.00 ft
Current Datum:	322-DS	**Height**	1102.10 ft	**Above System Datum:**	Mean Sea Level
Magnetic Data:	6/8/2012			**Declination:**	13.06 deg
Field Strength:	47477 nT			**Mag Dip Angle:**	59.11 deg

Vertical Section:	**Depth From (TVD)**	**+N/-S**	**+E/-W**	**Direction**
	ft	ft	ft	deg
	0.00	0.00	0.00	230.48

Survey

Stn	CLen ft	MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	ClsD ft	ClsA deg
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	65.00	65.00	0.00	0.00	65.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	99.00	164.00	1.95	229.25	163.98	1.68	-1.10	-1.28	1.97	1.97	0.00	1.68	229.25
4	92.00	256.00	3.81	216.28	255.86	6.21	-4.59	-4.27	2.13	2.02	-14.10	6.27	222.96
5	91.00	347.00	5.33	233.97	346.57	13.36	-9.51	-9.48	2.26	1.67	19.44	13.43	224.91
6	90.00	437.00	6.53	237.45	436.09	22.62	-14.72	-17.17	1.39	1.33	3.87	22.62	229.39
7	90.00	527.00	6.53	240.41	525.51	32.74	-20.00	-25.94	0.37	0.00	3.29	32.75	232.36
8	90.00	617.00	6.31	231.36	614.95	42.72	-25.62	-34.25	1.15	-0.24	-10.06	42.77	233.21
9	99.00	716.00	8.26	232.19	713.14	55.27	-33.38	-44.12	1.97	1.97	0.84	55.32	232.89
10	95.00	811.00	7.37	231.16	807.26	68.19	-41.38	-54.26	0.95	-0.94	-1.08	68.24	232.67
11	191.00	1002.00	7.64	228.84	996.62	93.13	-57.42	-73.36	0.21	0.14	-1.21	93.16	231.95
12	96.00	1098.00	7.68	226.93	1091.77	105.91	-66.00	-82.85	0.27	0.04	-1.99	105.92	231.46
13	92.00	1190.00	7.69	231.50	1182.94	118.20	-74.03	-92.16	0.66	0.01	4.97	118.21	231.22
14	96.00	1286.00	7.87	229.79	1278.06	131.19	-82.27	-102.20	0.31	0.19	-1.78	131.20	231.17
15	94.00	1380.00	7.82	228.82	1371.18	144.02	-90.64	-111.93	0.15	-0.05	-1.03	144.03	231.00
16	96.00	1476.00	7.64	224.24	1466.31	156.89	-99.51	-121.30	0.67	-0.19	-4.77	156.89	230.64
17	95.00	1571.00	6.61	236.94	1560.58	168.60	-107.02	-130.29	1.97	-1.08	13.37	168.60	230.60
18	96.00	1667.00	6.44	235.55	1655.95	179.46	-113.08	-139.36	0.24	-0.18	-1.45	179.46	230.94
19	95.00	1762.00	6.52	230.98	1750.35	190.16	-119.49	-147.94	0.55	0.08	-4.81	190.17	231.07
20	97.00	1859.00	6.65	228.85	1846.71	201.28	-126.65	-156.45	0.29	0.13	-2.20	201.29	231.01
21	96.00	1955.00	6.81	226.47	1942.05	212.51	-134.23	-164.76	0.33	0.17	-2.48	212.52	230.83
22	127.00	2082.00	7.12	231.94	2068.11	227.89	-144.27	-176.42	0.58	0.24	4.31	227.89	230.73
23	96.00	2178.00	7.02	229.36	2163.38	239.70	-151.75	-185.55	0.35	-0.10	-2.69	239.71	230.72
24	96.00	2274.00	7.25	230.41	2258.64	251.63	-159.44	-194.67	0.28	0.24	1.09	251.63	230.68

ERG

SCIENTIFIC DRILLING
FINAL REPORT

Scientific Drilling

Company:	ERG	**Date:** 6/14/2012 **Time:** 14:56:07	**Page:** 2
Field:	CAT CANYON	**Co-ordinate(NE) Reference:**	Well: 322-DS, Grid North
Site:	SECTION 31	**Vertical (TVD) Reference:**	322-DS 1102.1
Well:	322-DS	**Section (VS) Reference:**	Well (0.00N,0.00E,230.48Azi)
Wellpath:	322-DS SUR	**Survey Calculation Method:**	Minimum Curvature **Db:** Sybase

Survey

Stn	CLen ft	MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	ClsD ft	ClsA deg
25	96.00	2370.00	7.11	230.12	2353.89	263.63	-167.11	-203.90	0.15	-0.15	-0.30	263.63	230.66
26	95.00	2465.00	7.03	230.00	2448.16	275.32	-174.61	-212.87	0.09	-0.08	-0.13	275.32	230.64
27	97.00	2562.00	6.76	231.95	2544.46	286.96	-181.95	-221.91	0.37	-0.28	2.01	286.96	230.65
28	95.00	2657.00	6.67	235.06	2638.81	298.05	-188.55	-230.83	0.39	-0.09	3.27	298.05	230.76
29	96.00	2753.00	7.16	232.82	2734.11	309.59	-195.36	-240.17	0.58	0.51	-2.33	309.59	230.87
30	142.00	2895.00	7.22	233.62	2875.00	327.34	-206.00	-254.41	0.08	0.04	0.56	327.35	231.00
31	48.00	2943.00	7.07	234.10	2922.62	333.30	-209.52	-259.23	0.34	-0.31	1.00	333.31	231.05
32	96.00	3039.00	7.12	235.96	3017.89	345.12	-216.32	-268.94	0.24	0.05	1.94	345.14	231.19
33	96.00	3135.00	6.89	235.96	3113.17	356.77	-222.87	-278.64	0.24	-0.24	0.00	356.81	231.35
34	85.00	3220.00	6.89	235.96	3197.56	366.92	-228.58	-287.09	0.00	0.00	0.00	366.98	231.47

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AUG 3 0 2012

DIVISION OF OIL, GAS AND GEOTHERMAL RESOURCES

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

HISTORY OF OIL OR GAS WELL

MAP NO.	MAP LETTER	BOND NO.	114	121
				8/12 Pd

Operator ERG OPERATING COMPANY, LLC Field CAT CANYON County SANTA BARBARA

Well Los Alamos 322-DS Sec. 31 T. 9N R. 32w SBB.&M.

A.P.I. No. 04-083-22762 Name Ben Oakley (Person submitting report) Title Agent (President, Secretary, or Agent)

Date 7/27/2012 (Month, day, year)

Signature Ben Oakley

Address 6085 Cat Canyon Rd, Santa Maria, CA 93454 Telephone Number 805-361-7112

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment, with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, and initial production data.

Date: 6-9-12	MIRU Nabors Rig 472 on LA #322-DS in Section 31-T9N-R32W SBB&M, Santa Barbara County, CA. Wellhead located 4246' S & 959' E of NW/4 of Section 31-T9N-R32W. GL = 1090',KB + 12', RKB = 1102'.NU 11" Class IIA 2M BOPE w/ 6" Diverter on 16" x 11" Starter Flange, start operations @ 13:00 hrs 6/9/12.MU 8-3/4" PDC bit on directional BHA. Spud well at 21:00 hrs. Rotary / Directional drill 8-3/4" hole f/ 64' to 422'.
6-10-12	Rotary / Directional drill 8-3/4" hole f/ 422' to 825' w/ full returns. Circulate & condition mud @ 825' due to well flowing, Weight up check flow (no flow.) Wipe 8-3/4" hole f/ 825' to 134'. RIH to 825'. Rotary / Directional drill 8-3/4" hole f/ 825' to 2100' w/ full returns.
6-11-12	Change head in # 1 pump. Rotary / Directional drill f/ 2100' to 2128'. Full returns. Circulate hole clean. Send high vis sweep. Wipe 8-3/4" hole f/ 2128' to 1069'. Pulled 20k over string weight. RIH t/ 2128'.Rotary / Directional drill f/2128' to 2735'. Pack off @ 2735. Lost 75bbls of mud. Wipe 8-3/4" hole f/ 2735' to 2000' Pulled 40k over string weight. RIH to 2735'.Rotary / Directional drill 8-3/4" hole f/2735' to 3220' TD w/ 90% returns, adding LCM every connection. Circulate hole clean. Send 2 high vis sweep. w/ 95% returns. POOH f/ 3220' TD to 1500'.
6-12-12	Continue to POOH f/ 1500'. Lay down directional tools & clear walk. MU 8-3/4" stable drill hole opener & stabs at 30 & 60.Ream f/ 64' to 3220' TD. w/ full returns. Circulate hole clean, pump high vis sweep. POOH f/ 3220' for E-logs
6-13-12	POOH w/ HO reaming assy from wiper trip. HSM w/ Schlumberger, RU WL & ran Platform Express, AI, SP, GR, MCFL, Density Neutron, Dielectric f/3210' to 64'. RIH w/ SW gun & took 30 core samples f/ 3206' to 2682', recovered 30. RD WL. RIH w/ HO reaming assy to TD 3220'.Circ & cond, pumped hi-vis sweep, circ hole clean. POOH LD DP & reaming assy. HSM w/ West Coast tong crew, RU tongs and start running 7" casing.
6-14-12	Ran 82 jts 7" 23# K-55 LTC 8rd casing w/ shoe @ 3200', FC @ 3159'. Lost circulation. Mixed & pumped 200 bbl 40 ppb LCM pill. Mixed & pumped 200 bbl 50 ppb LCM pill, pump pressure rose to 480 psi w/o circ. Filled annulus w/ 8 bbls water, no loss. Concluded pack-off. Wait on trucks to wash out and park on tight location. RU BJ cementers. Drop bottom plug, filled & tested lines 3970 psi. Pumped 20 bbls mud flush & 20 bbls 11.5 ppg spacer, ahead of 117 bbls (228 sx - 655 cf) Type III lead --

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

HISTORY OF OIL OR GAS WELL

6-14-12 cont. cmt w/ additives @ 12.5 ppg & 2.87 cf/sk yield followed by 30 bbls (115 sx - 168 cf) Class G tail cmt w/ additives @ 15.8 ppg & 1.52 cf/sk yield. Dropped top plug & disp csg w/ 125 bbls lease water. Slowed to 2 bpm when lead hit shoe, 5 min/10 bbls, resumed to 5 bpm & bumped plug w/ 2132 psi. Checked floats - OK. Partial mud flush returns while displacing, no cement returns to surface. CIP @ 0100 hrs 6/15/12.RD BJ.

6-15-12 Slack off 7" csg, shimmed to center. ND Class IIA BOPE, Lifted BOP & made rough cut on 7" csg, set out BOP, cut off 16" starter flange/diverter, cut & dress 7" csg. Prep weld on WH. Weld on 7" SOW x 7.0625" wellhead. Test to 1500 psi. Capped & secured well. Released Nabors 472 at 0900 6/15/12.

CBL 6/17/12 ~ no bond above 2705

6-21-12 **WORKOVER / COMPLETION REPORT**
Held J.S.A. and serviced rig spotted rig mat moved in rigged up. Rigged up Tiger wire line. RIH down to 2564' and shot four 1/2" holes. POOH rigged down wire line. Made up 7"- 23# retainer. R.I.H. picking up off the ground set retainer with the center of the element @ 2516' pressured casing to 500 P.S.I. tested retainer. Rigged up cementer's and tested lines to 2500 P.S.I. then established an injection rate. Un-stung from retainer mixed and pumped 10 barrels of class G cement with 35 % silica flour + 0.5 % f1-62 + 0.5 % cd-32 + 0.2 % sodium meta-silicate 0.01 % anti-foamer. Stung back in displaced cement with 11 barrels of fresh water at a rate of 3 barrels a minute at 320 P.S.I. Unstung and flushed tubing with 3 barrel's. Rigged down cementer's and POOH removed stinger and closed well in.

6-22-12 Rigged up wire line. R.I.H. and shot 6- 1/2" holes @ 1925' POOH. Made up 7"- 23 # retainer. R.I.H. down to 1879'. Set retainer and tested to 500 P.S.I. Rigged up cementer's and tested lines to 2500 P.S.I. Established an injection rate and mixed 20 barrels of class G cement with 35 % silica flour + 0.5 % fluid loss additive + 0.5 % dispersant + 0.2 % sodium meta-silicate + 0.01 % anti foamer. Pump slurry at 650 P.S.I.at 4 barrel's a minute. Unstung from retainer and flushed tubing with 3 barrels. D.O.G. waived witnessing of squeeze by Ross Brunetti. Rigged down cementer's and POOH removed retainer stinger. Moved in and spotted drill collars, swab equipment and power swivel. Made up 6 1/8" Verlin special mill, picked up and tallied four 4 3/4" drill collar's, ran one joint of 3 1/2" and closed well in.

6-23-12 Continue running in the hole and tagged cement @ 1874'. Picked up power swivel and started drilling out retainer. Went down 6' and hit retainer @ 1879'. Took 7 hours to get through. Continued drilling cement plug with 6-1/8" Verlin special mill. Took 2 hours to get threw 30'. Went through at a connection. Removed power swivel ran one stand to make sure we were through. POOH standing back drill collars. Inspected mill - it was wore down to one inch.

6-24-12 Broke out mill. Made up 6 -1/8" junk mill. R.I.H. and tagged cement at 2400'. Picked uppower swivel, tested casing to 500 P.S.I., held, Started cleanout, very slow drilling with mill cleaned out to 2470'. Removed power swivel pulled up high and closed well in will continue in morning.
LA Los Alamos #322-DS cont'd

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RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

HISTORY OF OIL OR GAS WELL

6-25-12

LA #322-DS, Serviced rig & POOH. Removed mill & made up 6 1/8" rock bit. R.I.H. lost a valve on mud pit. Removed cap's found rock in one valve button back up and continued drilling out at 2470'. Hit retainer @ 2516' drilled through, ran pipe to bottom at 3159' and pressured up casing to 300 P.S.I., held tight, & turned hole over until returns were clean. Laid down one joint and closed well in.

6-26-12

Made up swab equipment. Swabbed down to 1600'. Laid swab equipment down and POOH. Stood back drill collars & rigged up wire line. R.I.H. with perforating gun and first gun did not fire. POOH, fixed gun, ran back in and shot holes from 2987' to 3005'. POOH and laid gun down. Made up second gun and shot holes from; 2744' to 2760'. Laid gun down made up third gun ran down and shot holes from; 2685' to 2701'. Rigged down wire line and closed well in.

6-28-12

Held J.S.A. and serviced the rig. Laid down drill collars and 10 joints of 3 1/2". Ran pump jacket T/L shoe and 83 joints of 3 1/2". Landed doughnut and removed work floor & B.O.P.E. Nippled up production 'T' and well head. Picked up pump bucket, tested. Ran 3 rods & made up left hand box and R.I.H., Stacked out high, POOH, Rod count was off. Counted R.I.H. spaced well out 86 7/8" rods. Closed well in. Loaded out equipment & removed guide lines. RDMO.

7-2-12

RU cementers. Run PVC down to 54 FT. Cement to surface w/ 110 CU-FT as top job, complete, FINAL.

See Wellbore Schematic,
Next Page

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

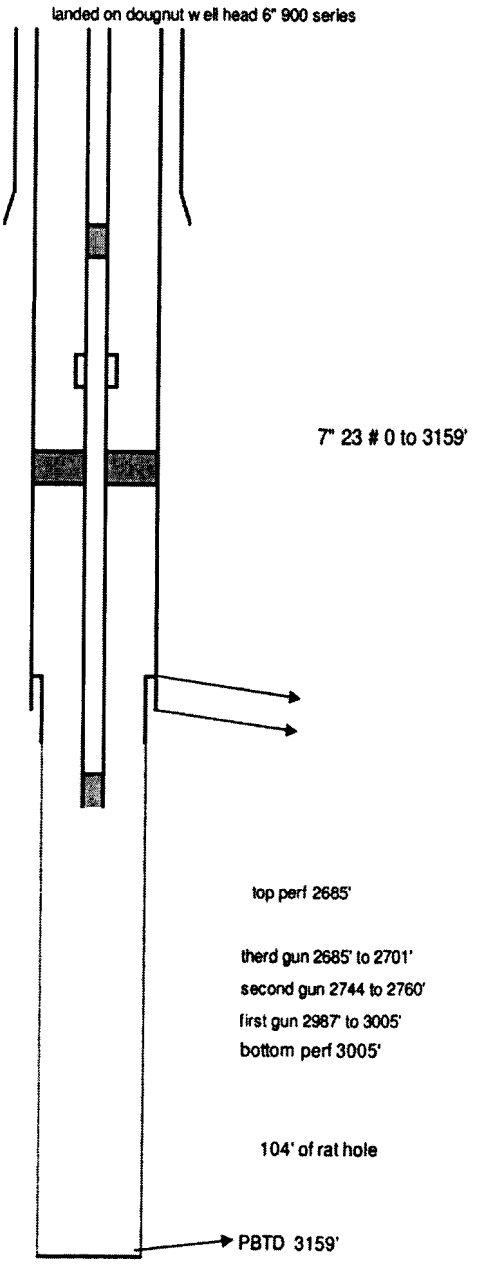
HISTORY OF OIL OR GAS WELL

WELLBORE SCHEMATIC:

Wellbore Schematic

Operator E.H.G. Operating C.O.

Field/Lease	Los Alamos 322-D.S.	Well #	L/A 322-D.S.	AFE#	CC564C
Rig	RIVAL # 4	Pusher Dean Thomas	Date Start	6/20/2012	Complete 6/27/2012



Surface Equipment

Kelly Bushing		Wellhead	6" 900 series
Pumping Unit		Crank Slot	
Strokes/Min		Stroke Lgth	

Casing

Csg Size	Weight	Top - Bottom	Perfs/Slots
7"	23 #	0--3159	2685'--3005'

Tubing Breakdown

Breakdown	Length	Depth
KB	0.00	0.00
3 1/2" F/N	1.10	0.00
83 joint's of 3 1/2 J-55	2648.37	1.10
3 1/2" T/L shoe	0.66	2649.47
pump Jacket full joint for clean out no holes	32.47	2650.13
	over all	2682.60
		#VALUE!
		#VALUE!
		#VALUE!
		#VALUE!
		#VALUE!
		#VALUE!
		#VALUE!
		#VALUE!

LEFT HAND BOX 3 ROD'S ABOVE THE PUMP

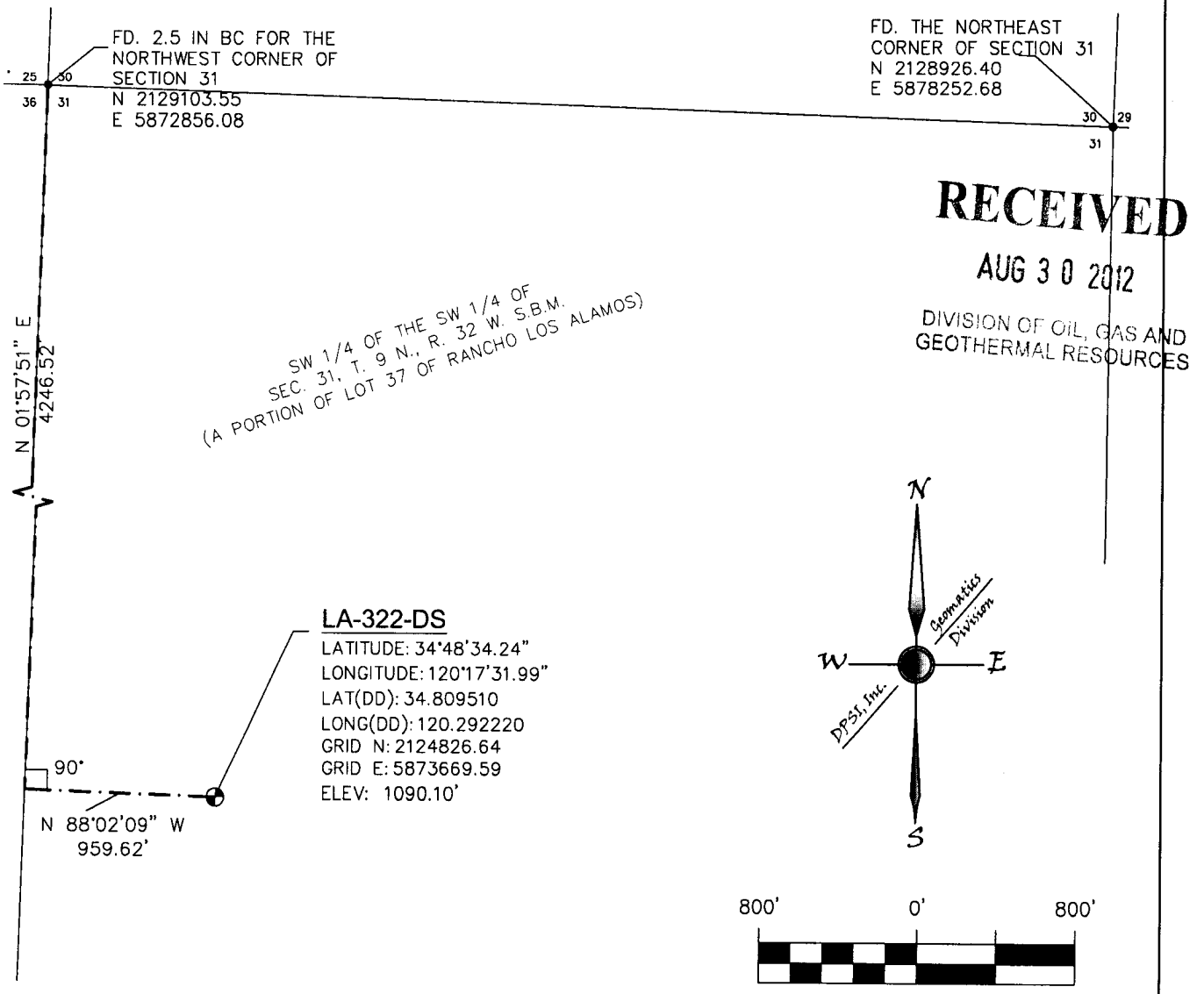
Size	Number	Length	Make	Guides
7/8"	86	2580		NO
		0		
		0		
		0		
Rod Subs	7/8" X 8' 7/8" x 8' 7/8" x 4'		20' total	
Polished Rod	1 1/2" X 30'			
Pump Data	3" X 2 1/4" X 20 R.H.A.M. with P.A. plunger		Q-- 765	

LA #322-DS

19

FINAL LOCATION OF WELL LA-322-DS

LOCATED IN THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF
SECTION 31, TOWNSHIP 9 NORTH, RANGE 32 WEST, S.B.M.
COUNTY OF SANTA BARBARA, STATE OF CALIFORNIA



SCALE: 1"=800'

BASIS OF BEARINGS

THE GRID BEARING OF S01°44'42"W BETWEEN SANTA BARBARA COUNTY SURVEY MONUMENT STATION NO.'S 1131 AND 1132 AS SHOWN ON RECORD OF SURVEY, BOOK 147, PAGES 57–61, WAS USED AS THE BASIS OF BEARINGS HEREON.

GEOGRAPHIC COORDINATES

GEOGRAPHIC COORDINATES SHOWN HEREON FOR LONGITUDE AND LATITUDE ARE BASED ON CORPSCON CONVERSION FROM NAD83 GEOGRAPHIC COORDINATES TO NAD83 STATE PLANE COORDINATES.

PROJECT BENCHMARK

THE TOP OF THE 3" DIAMETER BRASS CAP MARKED "SANTA BARBARA CO. SURVEY MON.", AT THE INTERSECTION OF CLARK AVENUE AND DOMINION ROAD DESIGNATED AS STATION No. 1132 ON RECORD OF SURVEY, BOOK 147, PAGES 57–61, WAS USED AS THE BENCH MARK HEREON.

ELEVATION = 634.57' (NAVD 88)

NOTES

BUREAU OF LAND MANAGEMENT RECORD INFORMATION SHOWN HEREON IS ONLY TO BE USED AS RECORD INFORMATION AND NOT AS A BOUNDARY SURVEY. SECTION INFORMATION PROVIDED IS BASED ON ESTIMATED SECTION LINES HAD THE RANCHO NOT BEEN IN PLACE.

DIVERSIFIED PROJECT SERVICES INTERNATIONAL
Bakersfield, CA
(661) 371-2800
www.dpsiinc.com

ERG Resources, L.L.C.

ERG WELL LOCATIONS

FINAL LOCATION OF WELL LA-322-DS

DRAWN BY: GM	CHECKED BY: JGZ	DATE: 06/08/12

6/19-20/2012

Memo of phone conversation — Ross Brunetti, AOGE

ERG Operating Co. "Los Alamos" 322-DS — Steve Horner, Engineer

Lost circulation during cement job on 7" casing. CBL shows top of good cement at 2710'

ERG proposes to only perforate the S9, top 2992', for production at this time

DOGGR will require squeeze cementing above the S1B at 1944'. ERG will perforate at 1925'±, and attempt to bring cement to surface, or at least to 1444', DOGGR to witness.

BFW is at about 910'. A BFW squeeze will not be required at this time, but must be performed when the well is abandoned.

Note, lead slurry was Type III with 10% microspheres and 10% gypsum, which may not show well on a CBL. I suspect the actual TOC may be closer to 250'.

17

NA AL RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS & GEOTHERMAL RESOURCES
195 S Broadway, Suite 101 Orcutt, CA 93455-4655
Phone:(805) 937-7246 Fax:(805) 937-0673

No. T **312-0427**

REPORT ON OPERATIONS

Ben Oakley
ERG Operating Company, LLC (E0255)
6085 Cat Canyon Road
Santa Maria, CA 93454

Orcutt, California
November 20, 2012

Your operations at well **"Los Alamos" 322-DS**, A.P.I. No. **083-22762**, Sec. **31**, T. **09N**, R. **32W**, **SB** B.&M., **Cat Canyon** field, in **Santa Barbara** County, were witnessed on **6/11/2012**, by **Christi Nielson-Kelly**, a representative of the supervisor.

The operations were performed for the purpose of **function testing the blowout prevention equipment and installation**.

DECISION: **APPROVED**

cc: Santa Barbara County Petroleum

CN:cb

Tim Kustic
State Oil and Gas Supervisor

By PAAbel
Patricia A. Abel, *District Deputy*
by R. Brunetti

16

OG109 (Rev. 10/2011)

API No. 083-22762 DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES T 312-0427 RB

BLOWOUT PREVENTION EQUIPMENT MEMO

Operator EPG Operating Co, LLC Well "Los Alamos" 322-DS Sec. 31 T. 9N R. 32W
Field Cat Canyon County Santa Barbara Spud Date

VISITS:	Date	Engineer	Time	Operator's Rep.	Title
1st	6/11/12	C. Kelly	(1200 to 1250)	Mark DeGagne	Co. Rep.
2nd			(to)		

Contractor Nabors Rig # 472 Contractor's Rep. & Title Mark Manoquin Driller
Casing record of well:

OPERATION: Function Testing (inspecting) the blowout prevention equipment and installation. Critical well? Y ☐ N ☒
DECISION: The blowout prevention equipment and its installation on the 16" " casing are approved.

Proposed Well Opns: drilling . MACP: psi
Hole size: " fr. ' to ', " to ' & " to '

REQUIRED BOPE CLASS: 6" diverter

CASING RECORD OF BOPE ANCHOR STRING

Size	Weight(s)	Grade(s)	Shoe at	CP at	Cement Details	Top of Cement: Casing	Top of Cement: Annulus
16"	conductor		64'		Surface pour ready mix		Surf

BOP STACK

API Symb.	Ram Size (in.)	Manufacturer	Model or Type	Vert. Bore Size (in.)	Press. Rtg.	Date Last Overhaul
A	-	Hydril	GK 10	11	3M	-
HCR	6"	HCR		6		

TEST DATA

Gal. to Close	Recov. Time (Min.)	Calc. GPM Output	psi Drop to Close	Secs. to Close	Test Date	Func. Test Press.
6.32					6/11/12	OK
2.25						

TOTAL: 8.57

ACTUATING SYSTEM

Accumulator Unit(s) Working Pressure 3000 psi
Total Rated Pump Output gpm Fluid Level
Distance from Well Bore 577' ft.

	Accum. Manufacturer	Capacity	Precharge
1	Koomey type	100 gal.	1000 psi
2		gal.	psi

CONTROL STATIONS	Elec.	Hyd.	Pneu.
✓ Manifold at accumulator unit		✓	
✓ Remote at Driller's station			✓
Other:			

EMERG. BACKUP SYSTEM			Press.	Wkg. Fluid
2 N_2 Cylinders	1	L= 55"	2200	7.1 gal.
Other:	2	L= ✓ "	2600	9.1 gal.
	3	L= "		gal.
	4	L= "		gal.
	5	L= "		gal.
	6	L= "		gal.
	TOTAL:			16.8 ga

AUXILIARY EQUIPMENT

				Connections: Weld	Flange	Thread	Func. Test
✓	Fill-up Line						OK
✓	Kill Line	2	3M			✓	
✓	Control Valve(s)		3M			✓	
	Check Valve(s)						
-	Aux. Pump Connect.		3M			✓	
✓	Choke Line	6				✓	
✓	Control Valve(s) HCR					✓	
-	Pressure Gauge						
	Adjustable Choke(s)						
✓	Bleed Line	6				✓	
✓	Upper Kelly Cock						
	Lower Kelly Cock						
✓	Standpipe Valve						
✓	Standpipe Press. Gau.						
✓	Pipe Safety Valve	4.5	3M				
✓	Internal Preventer	4.5	✓				

HOLE FLUID MONITORING	Alarm Type: Audible	Alarm Type: Visual	Class
✓ Calibrated Mud Pit		✓	A
Pit Level Indicator			
Pump Stroke Counter			B
Pit Level Recorder			
Flow Sensor			C
Mud Totalizer			
Calibrated Trip Tank			
Other:			

Hole Fluid Type	Weight	Storage Pits (Type & Size)
Gel. Mud	9.1	200 bbl

REMARKS AND DEFICIENCIES:

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OGD9 (3/98)

NATURAL RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS & GEOTHERMAL RESOURCES
5075 S. Bradley Rd., Suite 221 Santa Maria, CA 93455 - 5077

No. P 312-2086

Old	New
–	128
FIELD CODE	
–	21
AREA CODE	
–	00
POOL CODE	

PERMIT TO CONDUCT WELL OPERATIONS

Santa Maria, California
May 22, 2012

Ben Oakley, Agent
ERG Operating Company, LLC (E0255)
6085 Cat Canyon Rd.
Santa Maria, CA 93456

Your proposal to drill well **"Los Alamos" 322-DS** A.P.I. No **083-22762** Section **31** T **09N**, R. **32W**, **SB** B. & M., **Cat Canyon** field, **West** area, **Any** pool, **Santa Barbara** County, dated **3/30/2012**, received **5/8/12** has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:

1. Blowout prevention equipment, as defined by this Division's publication No. M07, shall be installed and maintained in operating condition and meet the following minimum requirements:
   a. A **6" diverter system** on the **16"** casing.
   b. Class **II2M**, with hydraulic controls, on the **7"** casing.
2. Hole fluid of a quality and in sufficient quantity to control all subsurface conditions in order to prevent blowouts shall be used.
3. No program changes are made without prior Division approval.
4. This well may not be suspended for more than two years without Division approval.
5. **THIS DIVISION SHALL BE NOTIFIED TO:**
   a. Inspect the diverter system prior to commencing **drilling** operations.

NOTE:

1. Hydrogen sulfide gas (H2S) is known to be present in this area and adequate safety precautions shall be taken prior to and during well operations.
2. Unlined sumps containing harmful water are not to be located over freshwater bearing aquifers.
3. Well operations shall be conducted in compliance with field rule No. **307-025**, dated **June 12, 2007**.
4. The Division routinely monitors monthly well production data and if anomalous water production is indicated, remedial action will be ordered.

Tim Kustic
State Oil and Gas Supervisor

By _____
Patricia A. Abel, District Deputy

Blanket Bond
cc: Santa Barbara County Petroleum/Well File

Engineer Brunetti, Ross
Office (805) 937-7246

RB:cb

A copy of this permit and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended. Issuance of this permit does not affect the Operator's responsibility to comply with other applicable state, federal, and local laws, regulations, and ordinances.

OG111 (revised 6/2011)

RECEIVED

MAY 0 8 2012

DIVISION OF OIL, GAS AND GEOTHERMAL RESOURCES

NATURAL RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

FOR DIVISION USE ONLY			
	Forms		
Bond	OGD114	OGD121	
Blanket	5/12	5/12	

OG

NOTICE OF INTENTION TO DRILL NEW WELL

Detailed instructions can be found at: www.conservation.ca.gov/dog/

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to drill well 322-DS Los Alamos 322-DS, well type Producer OG, API No. 083-22762. (Ass'gned by Division)

Sec. 31, T.9N, R. 32W, SB B.&M., Cat Canyon Field, Santa Barbara County.

Legal description of mineral-right lease, consisting of 10 acres (attach map or plat to scale), is as follows:

Do mineral and surface leases coincide? Yes☒ No☐. If answer is no, attach legal description of both surface and mineral leases, and map or plat to scale.

Location of well 4318 feet South (Direction) along section ☒ / property ☐ (Check one) line and 931 feet East (Direction) ✓

at right angles to said line from the NW corner of section ☒ / property ☐ (Check one) 31 and

Lat./Long. in decimal degrees, to six decimal places, NAD 83 format: Latitude: 34.809509 Longitude: -120.292219

If well is to be directionally drilled, show proposed coordinates (from surface location) and true vertical depth at total depth:

223 feet South (Direction) and 271 feet West (Direction). Estimated true vertical depth 2996. Elevation of ground above sea level 1090 feet. All depth measurements taken from top of Kelly Bushing that is 12 feet above ground. (Derrick Floor, Rotary Table, or Kelly Bushing)

EL 1102 KB

Is this a critical well as defined in the *California Code of* Regulations, Title 14, Section 1720(a) (see next page)? Yes☐ No☒

Is a California Environmental Quality Act (CEQA) document required by a local agency? Yes☒ No☐ If yes, see next page.

PROPOSED CASING PROGRAM

SIZE OF CASING (Inches API)	WEIGHT	GRADE AND TYPE	TOP	BOTTOM	CEMENTING DEPTHS	FORMATION PRESSURE (Estimated Maximum)	CALCULATED FILL BEHIND CASING (Linear Feet)
16"		ABA	Surface	92'	Surf - 92'	35 psi	80'
7"	23#	K-55, LTC	Surface	3022'	Surf - 3022'	1300 psi	3022'

(Attach a complete drilling program including wellbore schematics in addition to the above casing program.)

Estimated depth of base of fresh water: 575' Anticipated geological markers: Sisquoc, 1400' (Name, depth)

Intended zone(s) of completion: Sisquoc (Name, depth and expected pressure) Estimated total depth: 3022'

The Division must be notified immediately of changes to the proposed operations. Failure to provide a true and accurate representation of the well and proposed operations may cause rescission of the permit.

Name of Operator			
ERG Operating Company LLC			
Address: 6085 Cat Canyon Road		City/State: Santa Maria, California	Zip Code: 93454
Name of Person Filing Notice: Ben Oakley	Telephone Number: 805-361-7112	Signature	Date: 3/30/12
Individual to contact for technical questions: Ben Oakley	Telephone Number: 805-361-7112	E-Mail Address: boakley@ergresources.com	

This notice and an indemnity or cash bond shall be filed, and approval given, before drilling begins. If operations have not commenced within one year of the Division's receipt of the notice, this notice will be considered cancelled.

OG105 (08/09)

13

Date: 3/28/2012

ERG Operating Company

CAT CANYON FIELD
SUMMARY DRILLING PROGRAM

Los Alamos ~~Fleisher~~ 322-DS

Surface Location:
Longitude = -120.292219° (NAD 83)
Latitude = 34.809509° (NAD 83)
4318' South & 931' East from NW Cor Sec 31
Section 31-T9N-R32W, SBB&M
Santa Barbara County, CA
GL Elev.: 1090'

All Depths are relative to RKB at 1102', 12ft above GL

Pre-Spud

- Secure all necessary permits.
- Set 16' ABA Conductor to 92' RKB (80' GL)

Proposed Work:

1. MIRU Drilling rig. Post permits in appropriate/conspicuous location.
2. Nipple up 11" Class 2A BOPE with 6" diverter system.
3. Pick up 9-7/8" Bit, Mud Motor, and Directional BHA. Clean out conductor to 92'.
4. Directionally drill 9-7/8" hole from 92' to 3022' with 10.0 ppg Gel based mud.
5. Run E-logs.
6. RIH and cement 7" 23# K-55 LTC production string f/ 3022' to surface.
7. Nipple down BOPE, secure well, release rig.

12

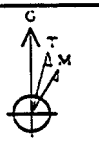
Prepared by: Kelsey Gallegos

DRILTEK

ERG

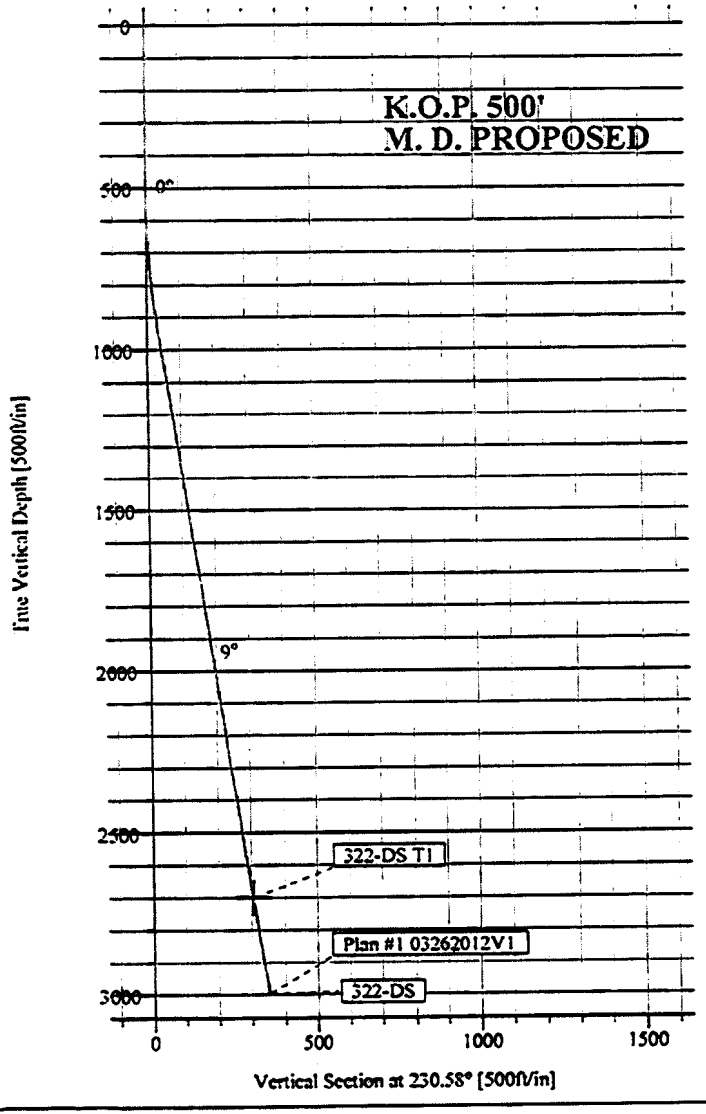
Field: CAT CANYON
Site: SECTION 31
Well: 322-DS
Wellpath: 322-DS
Plan: Plan #1 03262012V1

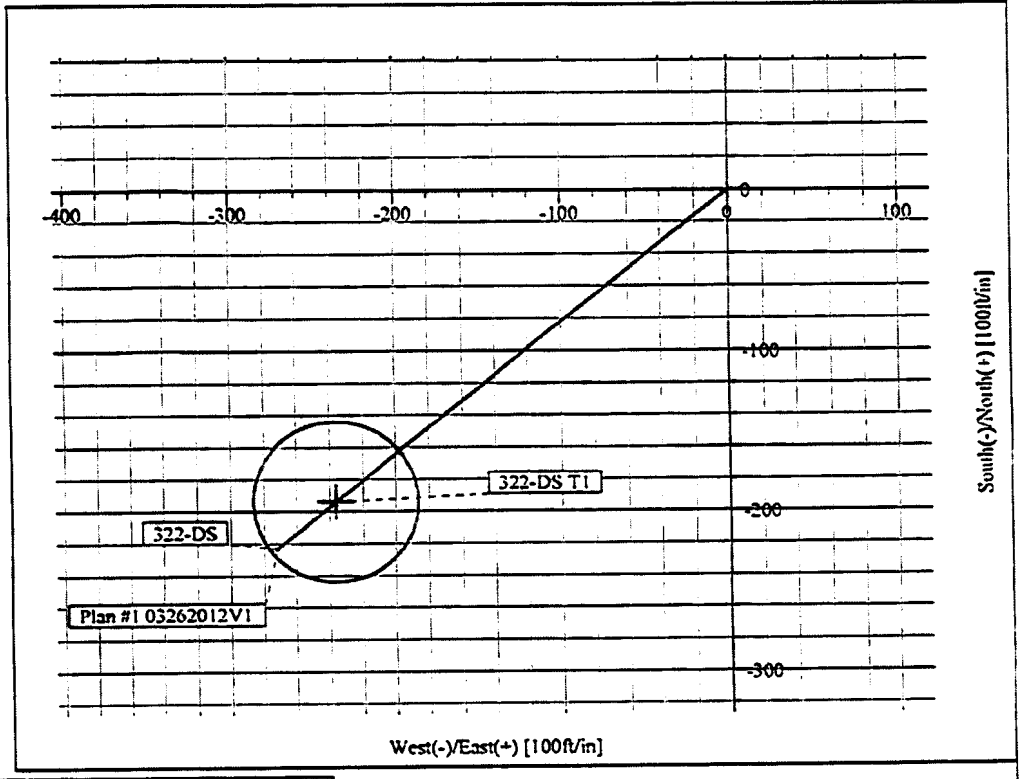
Scientific Drilling



Azimuths to Grid North
True North: 1.31°
Magnetic North: 14.39°

Magnetic Field
Strength: 47493nT
Dip Angle: 59.11°
Date: 3/26/2012
Model: IGRF2010





K.O.P. 500' MD
DOG LEG RATE 2 deg/100'
TARGET RADIUS 50'
MULTIPLE WELL A/C

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
322-DS T1	2700.00	-194.09	-236.15	Circle (Radius: 50)

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	230.58	0.00	0.00	0.00	0.00	0.00	0.00	
2	500.00	0.00	230.58	500.00	0.00	0.00	0.00	0.00	0.00	
3	938.77	8.78	230.58	937.05	-21.29	-25.91	2.00	230.58	33.53	
4	2722.59	8.78	230.58	2700.00	-194.09	-236.15	0.00	0.00	305.68	322-DS T1
5	3022.59	8.78	230.58	2996.49	-223.15	-271.51	0.00	0.00	351.44	

SCIENTIFIC DRILLING
Planning Report

Scientific Drilling

Company:	ERG	Date: 3/26/2012	Time: 22:26:37	Page:	1
Field:	CAT CANYON	Co-ordinate(NE) Reference:	Well: 322-DS, Grid North		
Site:	SECTION 31	Vertical (TVD) Reference:	322-DS 1101.6		
Well:	322-DS	Section (VS) Reference:	Well (0.00N,0.00E,230.58Azi)		
Wellpath:	322-DS	Plan:	Plan #1 03262012V1		

Field:	CAT CANYON SANTA BARBARA COUNTY CALIFORNIA, USA		
Map System:	US State Plane Coordinate System 1983	Map Zone:	California, Zone V
Geo Datum:	GRS 1980	Coordinate System:	Well Centre
Sys Datum:	Mean Sea Level	Geomagnetic Model:	IGRF2010

Site:	SECTION 31 SEC. 31, T9N, R32W, SB B&M SANTA BARBARA COUNTY				
Site Position:		Northing:	2124000.00 ft	Latitude:	34 48 25.866 N
From:	Map	Easting:	5873000.00 ft	Longitude:	120 17 39.933 W
Position Uncertainty:	0.00 ft			North Reference:	Grid
Ground Level:	0.00 ft			Grid Convergence:	-1.31 deg

Well:	322-DS SUR. N 2124826.19, E 5873669.95 DPSI				Slot Name:	
Well Position:	+N/-S 826.19 ft	Northing:	2124826.19 ft	Latitude:	34 48 34.187 N	
	+E/-W 669.95 ft	Easting:	5873669.95 ft	Longitude:	120 17 32.127 W	
Position Uncertainty:	0.00 ft					

Wellpath:	322-DS			Drilled From:	Surface
				Tie-on Depth:	0.00 ft
Current Datum:	322-DS	Height 1101.62 ft		Above System Datum:	Mean Sea Level
Magnetic Data:	3/26/2012			Declination:	13.08 deg
Field Strength:	47493 nT			Mag Dip Angle:	59.11 deg
Vertical Section:	Depth From (TVD) ft	+N/-S ft	+E/-W ft	Direction deg	
	0.00	0.00	0.00	230.58	

Plan:	Plan #1 03262012V1	Date Composed:	3/26/2012
		Version:	1
Principal:	Yes	Tied-to:	From Surface

Plan Section Information

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	230.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	230.58	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
938.77	8.78	230.58	937.05	-21.29	-25.91	2.00	2.00	0.00	230.58	
2722.59	8.78	230.58	2700.00	-194.09	-236.15	0.00	0.00	0.00	0.00	322-DS T1
3022.59	8.78	230.58	2996.49	-223.15	-271.51	0.00	0.00	0.00	0.00	

Section 1 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
0.00	0.00	230.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	230.58	100.00	0.00	0.00	0.00	0.00	0.00	0.00	230.58
200.00	0.00	230.58	200.00	0.00	0.00	0.00	0.00	0.00	0.00	230.58
300.00	0.00	230.58	300.00	0.00	0.00	0.00	0.00	0.00	0.00	230.58
400.00	0.00	230.58	400.00	0.00	0.00	0.00	0.00	0.00	0.00	230.58
500.00	0.00	230.58	500.00	0.00	0.00	0.00	0.00	0.00	0.00	230.58

Section 2 : Start Build 2.00

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
600.00	2.00	230.58	599.98	-1.11	-1.35	1.75	2.00	2.00	0.00	0.00
700.00	4.00	230.58	699.84	-4.43	-5.39	6.98	2.00	2.00	0.00	0.00
800.00	6.00	230.58	799.45	-9.96	-12.12	15.69	2.00	2.00	0.00	0.00
900.00	8.00	230.58	898.70	-17.70	-21.54	27.88	2.00	2.00	0.00	0.00
938.77	8.78	230.58	937.05	-21.29	-25.91	33.53	2.00	2.00	0.00	0.00

SCIENTIFIC DRILLING
Planning Report

Scientific Drilling

Company:	ERG	Date: 3/26/2012 Time: 22:26:37	Page: 2
Field:	CAT CANYON	Co-ordinate(NE) Reference:	Well: 322-DS, Grid North
Site:	SECTION 31	Vertical (TVD) Reference:	322-DS 1101.6
Well:	322-DS	Section (VS) Reference:	Well (0.00N,0.00E,230.58Azi)
Wellpath:	322-DS	Plan:	Plan #1 03262012V1

Section 3 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
1000.00	8.78	230.58	997.57	-27.22	-33.12	42.88	0.00	0.00	0.00	0.00
1100.00	8.78	230.58	1096.40	-36.91	-44.91	58.13	0.00	0.00	0.00	0.00
1200.00	8.78	230.58	1195.23	-46.60	-56.70	73.39	0.00	0.00	0.00	0.00
1300.00	8.78	230.58	1294.06	-56.29	-68.48	88.64	0.00	0.00	0.00	0.00
1400.00	8.78	230.58	1392.89	-65.97	-80.27	103.90	0.00	0.00	0.00	0.00
1500.00	8.78	230.58	1491.72	-75.66	-92.05	119.16	0.00	0.00	0.00	0.00
1600.00	8.78	230.58	1590.55	-85.35	-103.84	134.41	0.00	0.00	0.00	0.00
1700.00	8.78	230.58	1689.38	-95.03	-115.63	149.67	0.00	0.00	0.00	0.00
1800.00	8.78	230.58	1788.21	-104.72	-127.41	164.92	0.00	0.00	0.00	0.00
1900.00	8.78	230.58	1887.03	-114.41	-139.20	180.18	0.00	0.00	0.00	0.00
2000.00	8.78	230.58	1985.86	-124.09	-150.98	195.44	0.00	0.00	0.00	0.00
2100.00	8.78	230.58	2084.69	-133.78	-162.77	210.69	0.00	0.00	0.00	0.00
2200.00	8.78	230.58	2183.52	-143.47	-174.56	225.95	0.00	0.00	0.00	0.00
2300.00	8.78	230.58	2282.35	-153.15	-186.34	241.20	0.00	0.00	0.00	0.00
2400.00	8.78	230.58	2381.18	-162.84	-198.13	256.46	0.00	0.00	0.00	0.00
2500.00	8.78	230.58	2480.01	-172.53	-209.91	271.72	0.00	0.00	0.00	0.00
2600.00	8.78	230.58	2578.84	-182.21	-221.70	286.97	0.00	0.00	0.00	0.00
2700.00	8.78	230.58	2677.67	-191.90	-233.49	302.23	0.00	0.00	0.00	0.00
2722.59	8.78	230.58	2700.00	-194.09	-236.15	305.68	0.00	0.00	0.00	0.00

Section 4 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
2800.00	8.78	230.58	2776.50	-201.59	-245.27	317.48	0.00	0.00	0.00	0.00
2900.00	8.78	230.58	2875.33	-211.28	-257.06	332.74	0.00	0.00	0.00	0.00
3000.00	8.78	230.58	2974.16	-220.96	-268.85	348.00	0.00	0.00	0.00	0.00
3022.59	8.78	230.58	2996.49	-223.15	-271.51	351.44	0.00	0.00	0.00	0.00

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
0.00	0.00	230.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.00	230.58	100.00	0.00	0.00	0.00	0.00	0.00	0.00	MWD
200.00	0.00	230.58	200.00	0.00	0.00	0.00	0.00	0.00	0.00	MWD
300.00	0.00	230.58	300.00	0.00	0.00	0.00	0.00	0.00	0.00	MWD
400.00	0.00	230.58	400.00	0.00	0.00	0.00	0.00	0.00	0.00	MWD
500.00	0.00	230.58	500.00	0.00	0.00	0.00	0.00	0.00	0.00	MWD
600.00	2.00	230.58	599.98	-1.11	-1.35	1.75	2.00	2.00	0.00	MWD
700.00	4.00	230.58	699.84	-4.43	-5.39	6.98	2.00	2.00	0.00	MWD
800.00	6.00	230.58	799.45	-9.96	-12.12	15.69	2.00	2.00	0.00	MWD
900.00	8.00	230.58	898.70	-17.70	-21.54	27.88	2.00	2.00	0.00	MWD
938.77	8.78	230.58	937.05	-21.29	-25.91	33.53	2.00	2.00	0.00	MWD
1000.00	8.78	230.58	997.57	-27.22	-33.12	42.88	0.00	0.00	0.00	MWD
1100.00	8.78	230.58	1096.40	-36.91	-44.91	58.13	0.00	0.00	0.00	MWD
1200.00	8.78	230.58	1195.23	-46.60	-56.70	73.39	0.00	0.00	0.00	MWD
1300.00	8.78	230.58	1294.06	-56.29	-68.48	88.64	0.00	0.00	0.00	MWD
1400.00	8.78	230.58	1392.89	-65.97	-80.27	103.90	0.00	0.00	0.00	MWD
1500.00	8.78	230.58	1491.72	-75.66	-92.05	119.16	0.00	0.00	0.00	MWD
1600.00	8.78	230.58	1590.55	-85.35	-103.84	134.41	0.00	0.00	0.00	MWD
1700.00	8.78	230.58	1689.38	-95.03	-115.63	149.67	0.00	0.00	0.00	MWD
1800.00	8.78	230.58	1788.21	-104.72	-127.41	164.92	0.00	0.00	0.00	MWD
1900.00	8.78	230.58	1887.03	-114.41	-139.20	180.18	0.00	0.00	0.00	MWD
2000.00	8.78	230.58	1985.86	-124.09	-150.98	195.44	0.00	0.00	0.00	MWD
2100.00	8.78	230.58	2084.69	-133.78	-162.77	210.69	0.00	0.00	0.00	MWD
2200.00	8.78	230.58	2183.52	-143.47	-174.56	225.95	0.00	0.00	0.00	MWD
2300.00	8.78	230.58	2282.35	-153.15	-186.34	241.20	0.00	0.00	0.00	MWD
2400.00	8.78	230.58	2381.18	-162.84	-198.13	256.46	0.00	0.00	0.00	MWD

SCIENTIFIC DRILLING
Planning Report

Scientific Drilling

Company:	ERG	Date: 3/26/2012	Time: 22:26:37	Page:	3
Field:	CAT CANYON	Co-ordinate(NE) Reference:	Well: 322-DS, Grid North		
Site:	SECTION 31	Vertical (TVD) Reference:	322-DS 1101.6		
Well:	322-DS	Section (VS) Reference:	Well (0.00N,0.00E,230.58Azi)		
Wellpath:	322-DS	Plan:	Plan #1 03262012V1		

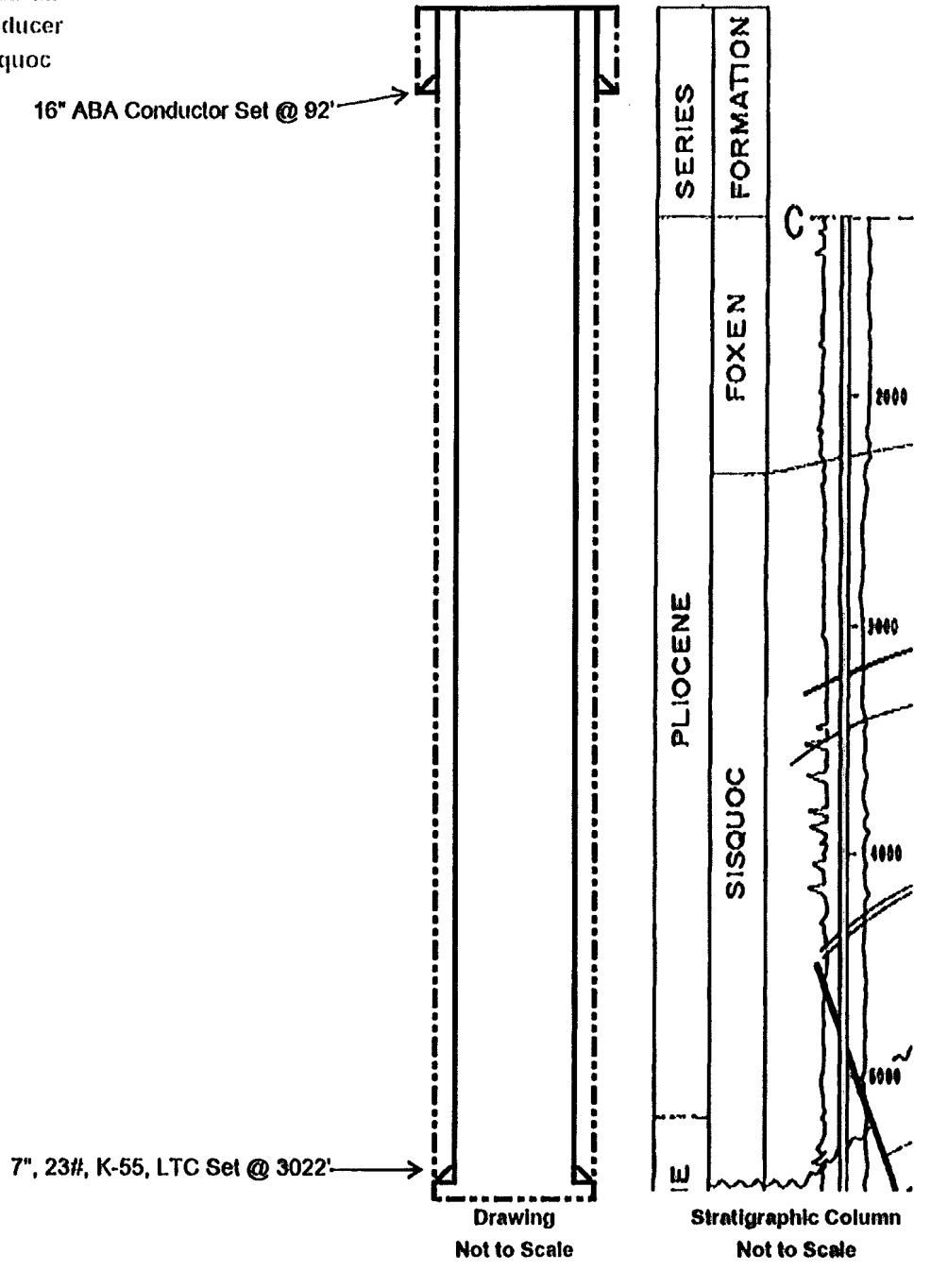
Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
2500.00	8.78	230.58	2480.01	-172.53	-209.91	271.72	0.00	0.00	0.00	MWD
2600.00	8.78	230.58	2578.84	-182.21	-221.70	286.97	0.00	0.00	0.00	MWD
2700.00	8.78	230.58	2677.67	-191.90	-233.49	302.23	0.00	0.00	0.00	MWD
2722.59	8.78	230.58	2700.00	-194.09	-236.15	305.68	0.00	0.00	0.00	MWD
2800.00	8.78	230.58	2776.50	-201.59	-245.27	317.48	0.00	0.00	0.00	MWD
2900.00	8.78	230.58	2875.33	-211.28	-257.06	332.74	0.00	0.00	0.00	MWD
3000.00	8.78	230.58	2974.16	-220.96	-268.85	348.00	0.00	0.00	0.00	MWD
3022.59	8.78	230.58	2996.49	-223.15	-271.51	351.44	0.00	0.00	0.00	MWD

ERG

322-DS
Santa Barbara County, CA Sec31-T9N-R32W SBB&M
Wellbore Diagram

Well Design: Hole: 9-7/8", Casing: 7"
Planned Depth: 3,022' MD
Objective: Producer
Prospect: Sisquoc



Drawing
Not to Scale

Stratigraphic Column
Not to Scale

Prepared By: Kelsey Gallegos
Confidential

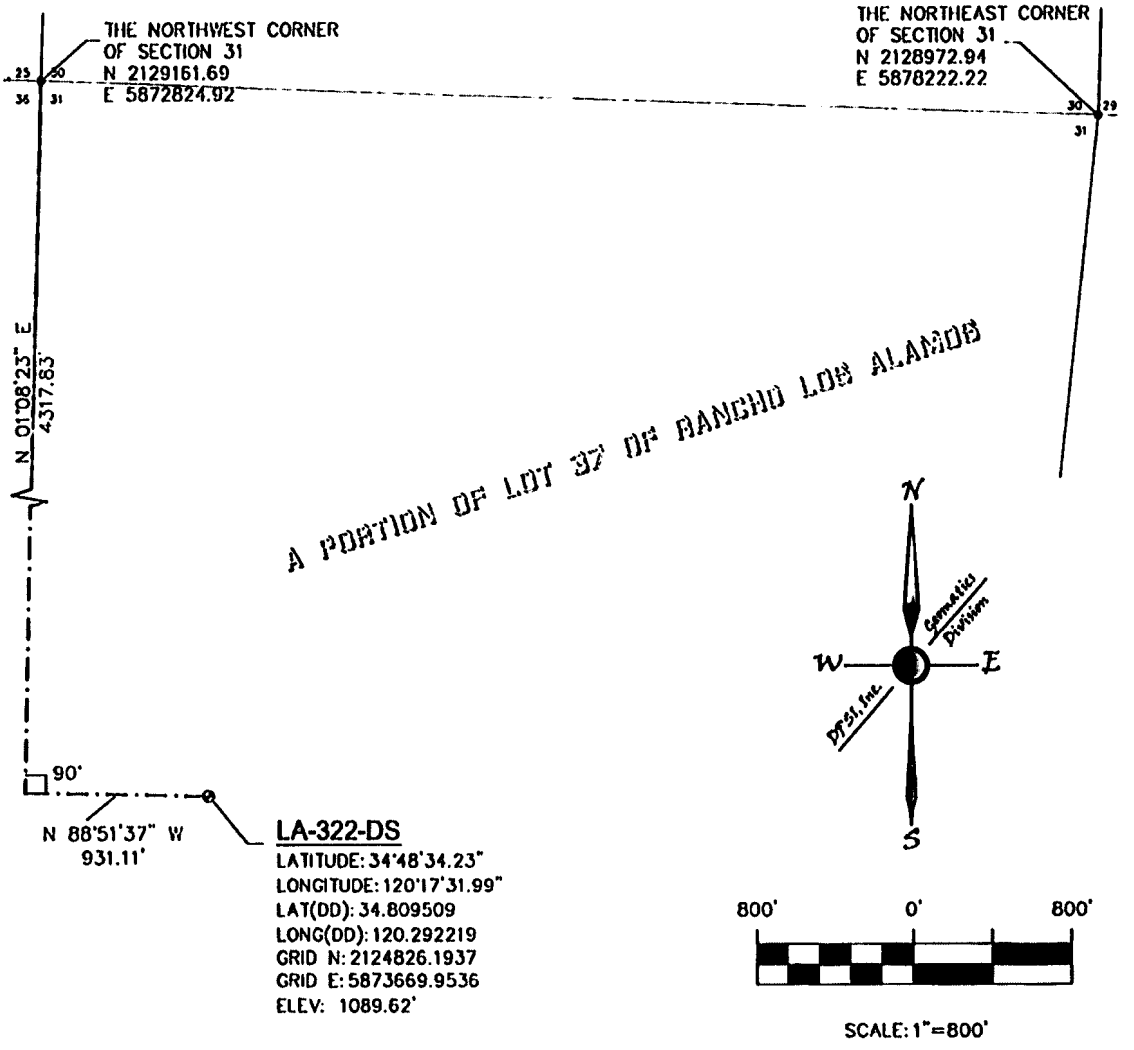
3/28/2012

DRILTEK
PROFESSIONAL DRILLING MANAGEMENT

7

PRELIMINARY LOCATION OF WELL LA-322-DS

LOCATED IN THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF
SECTION 31,TOWNSHIP 9 NORTH, RANGE 32 WEST, S.B.M.
COUNTY OF SANTA BARBARA, STATE OF CALIFORNIA



BASIS OF BEARINGS

THE GRID BEARING OF S01°44'42"W BETWEEN SANTA BARBARA COUNTY SURVEY MONUMENT STATION NO.'S 1131 AND 1132 AS SHOWN ON RECORD OF SURVEY, BOOK 147, PAGES 57-61, WAS USED AS THE BASIS OF BEARINGS HEREON.

GEOGRAPHIC COORDINATES

GEOGRAPHIC COORDINATES SHOWN HEREON FOR LONGITUDE AND LATITUDE ARE BASED ON CORPSCON CONVERSION FROM NAD83 GEOGRAPHIC COORDINATES TO NAD83 STATE PLANE COORDINATES.

PROJECT BENCHMARK

THE TOP OF THE 3" DIAMETER BRASS CAP MARKED "SANTA BARBARA CO. SURVEY MON.", AT THE INTERSECTION OF CLARK AVENUE AND DOMINION ROAD DESIGNATED AS STATION No. 1132 ON RECORD OF SURVEY, BOOK 147, PAGES 57-61, WAS USED AS THE BENCH MARK HEREON.

ELEVATION = 634.57' (NAVD 88)

NOTES

BUREAU OF LAND MANAGEMENT RECORD INFORMATION SHOWN HEREON IS ONLY TO BE USED AS RECORD INFORMATION AND NOT AS A BOUNDARY SURVEY. SECTION INFORMATION PROVIDED IS BASED ON ESTIMATED SECTION LINES HAD THE RANCHO NOT BEEN IN PLACE.

ERG Resources, L.L.C.

ERG WELL LOCATIONS

PRELIMINARY LOCATION OF WELL LA-322-DS

DRAWN BY: GM	CHECKED BY: JGZ	DATE: 03/27/12

NOTICE OF EXEMPTION

TO: Santa Barbara County Clerk of the Board of Supervisors

FROM: Florence Trotter-Cadena

The project or activity identified below is determined to be exempt from further environmental review requirements of the California Environmental Quality Act (CEQA) of 1970, as defined in the State and County Guidelines for the implementation of CEQA.

APN: 101-060-053, -054; 101-070-001 **Case No.:** 11LUP-00000-00496

Location: The property is located at the intersection of Cat Canyon and Palmer Roads.

Project Title: ERG- Los Alamos Fee

Project Description: ERG proposes to drill a total of 25 oil and gas wells located on 15 existing, disturbed well pads within the Cat Canyon Oil Field on the Los Alamos Fee. All proposed well pads either have existing idle wells or previously plugged and abandoned wells on location. Access to proposed well pads is provided by existing interior roads. Existing, above-ground flowlines and headers would be utilized to transport all production to the existing Los Alamos tank battery. No secondary or enhanced steaming is proposed as part of this project. No grading is proposed as part of this project because all well pads are existing, disturbed sites.

Name of Public Agency Approving Project: Santa Barbara County, Planning and Development

Name of Person or Agency Carrying Out Project: Dianna Beck, SCS Tracer

Exempt Status: (Check one)

_____ Ministerial
_____ Statutory Exemption
X Categorical Exemption
_____ Emergency Project
_____ Declared Emergency

Cite specific CEQA and/or CEQA Guideline Section: 15303- New Conversions or Construction of Small Structures **Reasons to support exemption findings:** This section allows for existing facilities and the construction or conversion of a small structure from one use to another, such as single family dwellings, to be exempt from environmental review. The proposed project is for 25 exploratory wells located on 15 previously disturbed areas for oil production, which will go into production if viable. If the wells prove to be unproductive they would be plugged and abandoned in accordance with the Division of Oil and Gas.

ERG proposes to drill a total of 25 oil and gas wells located on 15 existing, disturbed well pads within the Cat Canyon Oil Field on the Los Alamos Fee. All proposed well pads either have existing idle wells or previously plugged and abandoned wells on location. Access to proposed well pads is provided by existing

interior roads. Existing, above-ground flowlines and headers would be utilized to transport all production to the existing Los Alamos tank battery. No secondary or enhanced steaming is proposed as part of this project. No grading is proposed as part of this project because all well pads are existing, disturbed sites. Please see the attached site plan for proposed well pad locations.

Regional access to the Los Alamos Fee is provided by Cat Canyon Road (paved, approximately 25-30 feet wide). Local access to the proposed well pads is provided by existing interior roads (some unpaved, some paved, approximately 20-25 feet wide). The main entrance along Cat Canyon Road (to Old Rig Road) is gated to prevent public access during drilling operations. The closest residence to any proposed well pad is greater than 0.5 miles away.

A tentative drilling schedule for the 25 wells would include mobilization, drilling, and de-mobilization with the complete process requiring approximately 12 months. Each well should take approximately 11 days to complete. The 11 days designated for drilling and logging at each well is the time that engines powering the rig would be in operation. Equipment used during the drilling phase would include a drill rig (approximately 110 feet in height) and pumping units (approximately 15 to 20 feet in height). The drill rig is temporary and would be removed upon completion of the wells. Engines powering the drill rig would be in the Statewide Portable Equipment Registration Program (PERP) and would comply with program requirements including engine tier specifications. The maximum expected pressure at the well head during drilling is 0 psi. Drilling operations would occur 24 hours per day, 7 days per week until completion. Since drilling operations would occur 24 hours per day, the minimum amount of lighting needed for site safety would be provided. All lighting would be oriented downward and towards the project site.

Secondary or enhanced steaming is not proposed as part of this project. The composition of the produced gas is expected to be consistent with natural gas (high content of methane and ethane). A gas analysis will be provided as soon as it becomes available. Hazardous materials on site will be consistent with typical oil field production. Materials may include scale inhibitor, water clarifier, demulsifier, and diluent. All materials will be included in the existing Hazardous Materials Business Plan, stored in secondary containment, and disposed of properly. Additionally, the existing Spill Prevention Control and Countermeasure (SPCC) Plan for Cat Canyon Oil Field would be updated to include this project. Containment areas would be constructed as required by SPCC regulations to prevent discharges.

The anticipated number of truck trips generated by this project is as follows:

Phase	Truck Trips (Peak)	Truck Trips (Daily Avg.)	Expected Duration	Notes
1) Site Preparation	2	2	21 days	-One scraper to prep sites, 8 hours a day for 21 days (left on site overnight for next day use)
	2	2	21 days	-One light duty gasoline truck, 2 trips for 21 days
2) Drilling	4	4	275 days	-One light duty truck, 4 trips for 275 days
	2	2	275 days	-One heavy duty truck, 2 trips for 275 days
3) Production,	2	2	Ongoing	-Light duty vehicles for maintenance

Processing and Maintenance				

Proposed permanent production equipment would include pumping units at each of the 20 wells and use of existing flow lines to existing headers. Existing flowlines and headers would be tested for leaks and would be repaired or replaced as necessary. The headers would transport produced fluids to the existing tank battery. Please see the attached process flow diagram for more detail. The maximum expected pressure at the well head during production is 1,000 psi.

If the wells prove to be unproductive, they would be plugged and abandoned in accordance with California Department of Conservation Division of Oil, Gas and Geothermal Resources (DOGGR), and Santa Barbara County Petroleum Division standards. Any constructed production wells deemed to be at the end of their productive life would be plugged and abandoned according to DOGGR, and Santa Barbara County Petroleum Division standards. Following well abandonment, graded pads would be cleared of debris and any facility items including pipelines. Special soil remediation is not expected to be necessary since there is no proposal to use or inject environmentally incompatible chemicals or solvents at the well sites. Re-contouring of areas would not be required.

EQUIPMENT LIST	
Existing Permitted Equipment (APCD) – Los Alamos Fee	**Description**
Wash Tank	3,000 BBL, 29.7 ft. diameter, 24 ft. height
Wastewater Tank	2,000 BBL, 29.7 ft. diameter, 16 ft. height
Crude Tank	500 BBL, 15.4 ft. diameter, 16 ft. height
Separator	3.5 ft. diameter, 8 ft. height
Petrotherm Heater	1.2 MMbtu
Petrotherm Heater	1.2 MMbtu
Flowlines	Existing flowlines from well pads to headers
Headers	Existing headers transporting produced fluids to existing tank battery
Existing Permitted Equipment (APCD) – Williams Holding Lease	**Description**
Gas Gathering Compressor/ Scrubber	Compressor is mounted on a Compressco V-Jack Compressor skid which includes a 20 inch diameter by 60 inch s/s inlet scrubber. Maximum flow rate = 100 mcfd at 50 psi discharge pressure.
Flare	Air assisted open pipe flare equipped with a 300 cfm blower, two continuous pilots, and a temperature and pressure meter.
Pending Permitted Equipment (APCD) – Los Alamos Lease	**Description**
Wastewater Tank	2,000 BBL, 29.7 ft. diameter, 16 ft. height
Test Tank	500 BBL, 15.4 ft. diameter, 16 ft. height
Vapor Recovery Compressor	Vapor recovered by electric driven compressor servicing the following equipment with an efficiency of 95% at each vapor recovery point: wash tank, wastewater tanks, crude tank and test

	tank. The vapor recovery system includes all piping, valves, and flanges associated with the VRC. All vapors from VRC routed to compressor on GWP Lease.
Proposed Equipment	**Description**
25 pumping units	Approximately 15-20 ft. in height
Temporary Equipment	**Description**
Drilling Rig	Diesel engine, registered with CARB, approximately 110 ft. in height

There is no substantial evidence that the proposed project involves unusual circumstances, including future activities, resulting in or which might reasonably result in significant impacts which threaten the environment. The exceptions to the categorical exemptions pursuant to Section 15300.2 of the State CEQA Guidelines are:

(a) **Location. Classes 3, 4, 5, 6, and 11 are qualified by consideration of where the project is to be located -- a project that is ordinarily insignificant in its impact on the environment may in a particularly sensitive environment be significant. Therefore, these classes are considered to apply all instances, except where the project may impact on an environmental resource of hazardous or critical concern where designated, precisely mapped, and officially adopted pursuant to law by federal, state, or local agencies.**

The 25 exploratory wells and associated equipment would be located on 15 previously disturbed areas for oil production within an area of biological resources. However, BMP's proposed by the applicant and included in the project description would ensure that the impacts are less than significant. Access to the project site area would continue to be provided by existing oilfield roads. No water flooding, hydraulic fracturing, or steam generation is proposed as a part of this project.

(b) **Cumulative Impact. All exemptions for these classes are inapplicable when the cumulative impact of successive projects of the same type in the same place, over time is significant.**

The proposed project will not cause a significant cumulative impact, as the project is for 25 exploratory wells located on 15 previously disturbed areas for oil production, located in the AG-II-100 zone district in an area that is appropriate for this development. Therefore, the project will not result in a significant cumulative impact.

(c) **Significant Effect. A categorical exemption shall not be used for an activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances.**

There are no unusual circumstances surrounding the proposed project and there is not a reasonable possibility that the project would have a significant effect on the environment due to unusual circumstances. BMP's proposed by the applicant and included in the project description would ensure that the impacts are less than significant. Therefore, the project will not result in a significant cumulative impact.

(d) **Scenic Highways. A categorical exemption shall not be used for a project which may result in damage to scenic resources, including but not limited to, trees, historic buildings, rock outcroppings, or similar resources, within a highway officially designated as a state scenic highway. This does not apply to improvements which are required as mitigation by an adopted negative declaration or certified EIR.**

Although the proposed project would include 25 exploratory wells located on 15 previously disturbed areas for oil production which will go into production if viable, no additional ground disturbance would occur and would not be visible from a designated scenic highway. The project would not result in damage to scenic resources, including but not limited to, trees, historic buildings, or rock outcroppings.

(e) **Hazardous Waste Sites. A categorical exemption shall not be used for a project located on a site which is included on any list compiled pursuant to Section 65962.5 of the Government Code.**

The project is not located on a site which is included on any list compiled pursuant to Section 65962.5 of the Government Code.

(f) **Historical Resources. A categorical exemption shall not be used for a project which may cause a substantial adverse change in the significance of a historical resource.**

The proposed project would not result in any substantial adverse change in the significance of a historical resource.

Lead Agency Contact Person: Florence Trotter-Cadena Phone #: 934-6253

Department/Division Representative: J. Matthew Carlson Date: 1-27-12

Acceptance Date: _____

distribution: Hearing Support Staff

Date Filed by County Clerk: _____.

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